## (19) World Intellectual Property Organization International Bureau



1 **5 OCT** 2004

(43) International Publication Date 30 October 2003 (30.10.2003)

**PCT** 

(10) International Publication Number WO 03/090433 A1

(51) International Patent Classification?: 1/68, 1/00

H04M 1/66,

- (21) International Application Number: PCT/US03/11573
- (22) International Filing Date: 14 April 2003 (14.04.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/372,529

15 April 2002 (15.04.2002) US

- (71) Applicant (for all designated States except US): SPATIAL WIRELESS, INC. [US/US]; 1651 Glenville Drive, Suite 210, Richardson, TX 75081 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): XU, Jianming [US/US]; 4305 Vanderpool Drive, Plano, TX 75024 (US). NAIM, Ghassan [CA/US]; 5413 Naaman Forest #836, Garland, TX 75044 (US). BOPPANA, Jyoti [US/US]; 1421 Debon Drive, Plano, TX 75075 (US). ALAM, Mahbubul [CA/US]; 8913 Brook Hollow Drive, McKinney, TX 75070 (US).

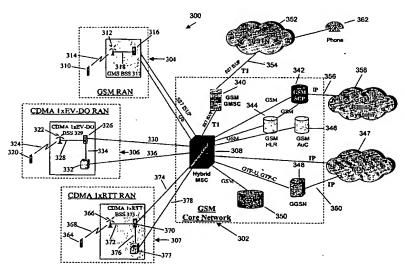
- (74) Agents: NAIFEH, Bill et al.; Haynes and Boone, LLP, 901 Main Street, Suite 3100, Dallas, TX 75202 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Declarations under Rule 4.17:

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR PROVIDING AUTHENTICATION OF A MOBILE TERMINAL IN A HYBRID NETWORK FOR DATA AND VOICE SERVICES



(57) Abstract: The present disclosure provides a method and system for passing information required by a wireless procedure in a hybrid wireless network (300) before the procedure is invoked, the hybrid wireless network (300) having at least one radio access network (304, 306, 307) based on a first technology and a core network (302) based on a second technology. The hybrid network (300) implements a special mobile switching center (308) to be a "double agent" passing information between the mobile terminal (310, 320, 364) and entities in its core network (302). In the context of messaging, the message contents may be encoded, packaged, and decoded appropriately. The present disclosure does not introduce any changes to telecommunication standards such as the GSM and CDMA standards governing the messaging process.

7O 03/090433 A1



KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

 as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations — of inventorship (Rule 4.17(iv)) for US only

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



International application No.

PCT/US03/11573

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : H04M 1/66, 1/68, 1/00			
USCL : 455/411, 553.1			
According to International Patent Classification (IPC) or to both national classification and IPC  B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) U.S.: 455/411, 410, 553.1, 552.1, 426.1, 422.1, 435.2, 435.1, 432.2, 432.1, 517; 370/335, 342; 341/60, 50; 375/130			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
Y	US 6,351,635 B1 (OHSUGE) 26 February 2002 (26.02.2002), abstract and figures 1 and		1-2
<u>A</u>	3.		3-17
Y	US 5,564,076 A (AUVRAY) 08 October 1996 (08.10.1996), abstract and column 3, lines 10-17.		1-2
A	10-17.		3-17
A	US 5,818,824 A (LU et al) 06 October 1998 (06.10.1996), abstract and figure 3.		1-17
A	US 6,091,715 A (VUCETIC et al) 18 July 2000 (18.07.2000), abstract, title and figures.		1-17
Further documents are listed in the continuation of Box C. See patent family annex.			
Special categories of cited documents:      "A" document defining the general state of the art which is not considered to be of particular relevance		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"B" earlier a date			
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	
"O" document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filing date but later than the		"&" document member of the same patent family	
		Date of mailing of the international search coart  09 SEP 2003	
	nailing address of the ISA/US ail Stop PCT, Atm: ISA/US	/ VIII a ZMA	
Co	ommissioner for Patents	Eliseo Ramos-Feliciano	and Train
i Al	O. Box 1450 exandria, Virginia 22313-1450 To. (703)305-3230	Telephone No. 703-305-5631	

Form PCT/ISA/210 (second sheet) (July 1998)

PCT/US03/11573

Form PCT/ISA/210 (second sheet) (July 1998)